

## Case 327 : Narrative

Case Vehicle (A): 1998 Mercury	Vehicle (B): 2002 Chevrolet
Type: Sable, 4-door sedan	Type: Cavalier, 2-door coupe
Driver: 24-year-old female	Driver: 18-year-old female
CDC: 12-FDEW-1, 00-TYDO-3	CDC: 09-LPEW-4, 03-RPAW-3, 00-TZDN-5

This is a fatal crash. The driver of vehicle (B) died as a result of injuries sustained.

### SITUATION

[1](#) [2](#) [3](#) [4](#) Case vehicle (A) was traveling east in the eastbound lane of a two-lane, two-way paved road and was approaching a controlled four-leg intersection. [5](#) [6](#) [7](#) Vehicle (B) was traveling north in the northbound lane of a two-lane, two-way dirt road with a negative grade in the direction of travel, and was approaching the same intersection. It was dark, the weather was cloudy, and the roads were dry and in good condition. Case vehicle (A) entered the intersection at the same time as vehicle (B) and the front of case vehicle (A) struck the left side of vehicle (B) in a T-type configuration. The driver of case vehicle (A) reportedly attempted to avoid the collision by steering left, which caused the collision to occur near the center of the intersection. [8](#) The impact caused both case vehicle (A) and vehicle (B) to be re-directed toward the northeast corner and to begin rotating counterclockwise. [9](#) As vehicle (B) departed the intersection, the right-front door struck and broke a tree trunk, which fell on the roof of case vehicle (A). Vehicle (B) then tripped and rolled one-quarter turn with the right side leading, and struck another tree with the trunk lid, backlight, and roof. Vehicle (B) came to rest on its right side, against the second tree, facing northwest. Case vehicle (A) came to rest next to case vehicle (A) on its wheels, facing northwest.

The driver of case vehicle (A) did not seek medical treatment. The driver of vehicle (B) was transported to a local hospital and pronounced dead on arrival. Both vehicles were towed due to disabling damage.

## **GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES**

[10](#) Damage to case vehicle (A) was moderate. [11](#) Direct damage from the frontal impact into the left side of vehicle (B) involved the entire frontal plane, but the maximum crush was only 2 cm and occurred uniformly across the front bumper.

[12](#) Damage to the top plane from impact by the falling tree was confined to the roof, with a maximum downward crush of 28 cm at the center of the backlight header.

[13](#) Damage to vehicle (B) was severe. [14](#) Direct damage from the left-side impact by case vehicle (A) began just forward of the left A-pillar and extended 168-cm rearward to just behind the driver door. The maximum crush was 65 cm and occurred at the center of the driver door. The sill had been engaged by case vehicle (A) and the maximum crush at this level was 33 cm. Damage to the right side from impact with the tree was confined to the right-front door. The direct damage length was 56 cm and the maximum crush was 14 cm near the middle of the door. [15](#) [16](#) Damage from impact with the second tree began at the right-rear corner of the trunk lid and extended across the width of the vehicle to just forward of the left portion of the backlight header. Maximum downward crush from this impact was 30 cm and it occurred at the left-rear corner of the roof.

Using the WinSMASH crash-reconstruction program and crush profiles measured for case vehicle (A) and vehicle (B), the following impact severities were calculated for the frontal impact of case vehicle (A) into the left-side of vehicle (B):

		Calculated Velocity Change - kph (mph)		
Vehicle	Variable	Total	Longitudinal	Latitudinal
Case Vehicle (A)	delta V	38 (23)	-38 (-23)	0 (0)
Vehicle (B)	delta V	46 (28)	0 (0)	46 (28)

## DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

### Exterior

[17](#) [18](#) In the front, direct damage was confined to the bumper grille and forward portions of the hood. [19](#) [20](#) The external lens of the right headlight was broken but there was no damage to the left headlight. There was no damage to the hood hinges or latch and the rear edge of the hood was not elevated. There was a small spider-web crack in the upper-left corner of the windshield and the right half of the windshield was cracked from contact by the deploying passenger airbag.

[19](#) On the right side, the forward portion of the fender was directly damaged due to contact with the left B-pillar of vehicle (B) when the two vehicles were at maximum engagement. [21](#) The right-front and right-rear glazing was disintegrated. The upper portions of the right A-, B-, and C-pillars were deformed from the top-plane impact by the tree, but the lower portions were not damaged.

[22](#) The right-rear door was deformed from the top-plane impact but remained operational. The right-front door was jammed shut from the tree impact. There was no significant change in the right wheelbase.

[23](#) [24](#) In the rear, damage was confined to the backlight and backlight header. The backlight header was crushed down 28 cm near the midline, and the backlight was shattered. There was no damage to the trunk lid, the taillights, or the rear bumper.

[23](#) [24](#) On the top plane, direct damage from impact by the falling tree began near the center of the backlight header and ended at the junction of the windshield header and the right A-pillar. The backlight was shattered and the upper portions of the right C-pillar, the backlight header, and the roof were crushed down. The right half of the roof was crushed more than the left half, and the rear portion was crushed more than the front portion.

## **Interior**

[25](#) [26](#) [27](#) [28](#) This vehicle was equipped with steering-wheel and passenger frontal-impact airbags, and both deployed during the frontal impact. There was no damage to, or contact marks on, the airbags or modules doors/flaps. [29](#) [30](#) The steering-wheel rim was not damaged and the steering column was not rotated. [31](#) [32](#) There was no damage to the instrument panel, the vertical console, or the floor-mounted console. [33](#) [34](#) [35](#) There was no damage to the knee bolsters or foot controls. [36](#) On the driver side, there was a spider-web crack in the upper-left corner of the windshield. There was no damage to the upper-portion of the left A-pillar, the left sunvisor, or the left side of the windshield header. [37](#) The fabric liner on the driver-door armrest appeared to be slightly scuffed but this could have been due to normal wear of the fabric.

[38](#) [39](#) On the passenger side of the first row, the B-pillar and the adjustable D-ring were scuffed and abraded from an unknown source. [40](#) [41](#) The right A-pillar, the right-front glazing, the roof, the roof siderail, and the roof headliner were damaged from the top-plane impact by the tree. The windshield was cracked over the entire right half of the windshield due to contact with the passenger airbag module cover.

[42](#) [43](#) In the second row, damage was confined to the roof, the right roof siderail, the roof headliner, the backlight, and the backlight header, which were crushed

down due to the top-plane impact by the tree. There was no damage to the rear seats or rear deck lid.

The following intrusions were noted and measured:

Location	Component	Distance (cm)	Direction
right front	roof	3	down
	B-pillar	6	to left
center rear	backlight header	20	down
	roof	20	down
right rear	roof	23	down
	roof siderail	11	to left
	backlight header	23	down

## OCCUPANT KINEMATICS AND INJURIES

The 5-ft, 1-in, 110-lb, 24-year-old female driver was reportedly using the available three-point belt and the steering-wheel airbag deployed during the frontal impact. [44](#) [45](#) [46](#) There were faint webbing imprints on the sliding latch plate but there were no webbing load marks on the D-ring. [47](#) [48](#) The driver seat and tilt steering column were adjusted to mid positions.

[49](#) During the frontal impact, the driver moved forward relative to the vehicle interior into the belt restraints and airbag. She sustained minor unspecified lacerations, probably from flying glass.

The following table and attached drawing [50](#) summarize the injuries for the driver of case vehicle (A).

Occupant: Driver	Age: 24 years	Gender: Female		
Restraints: 3-point belt; steering-wheel airbag	Stature: 155 cm (5 ft, 1 in)	Mass: 50 kg (110 lb)		
Injury Description	A.I.S.	Injury Source		
—	—	Definite	Probable	Possible
Unspecified minor lacerations	1	—	Flying glass	—
Maximum A.I.S. Level	1	—	—	—
Injury Severity Score	1	—	—	—

CASE NO.: 827-02

CASE VEHICLE: 1999 Mercury

TYPE: Sedan, 4-door sedan

OCCUPANT: (Driver), 34-year-old female

STATURE: 159 cm (5 ft 3 in)      WEIGHT: 50 kg (110 lb)

RESTRAINTS: 3-point belt, steering-wheel airbag

SEVERITY:      NASS = 1      AIS = 1

(Unspecified) minor  
injuries (0)



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Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses increased with the number of trials. The number of correct responses was significantly higher than the number of incorrect responses for all conditions.





# Vehicle Report

## General

## Conditions

Variable Number and Name	Code Value	Code Description	Other Options
V206 — Urban/Rural Area	2	Rural	<a href="#">more</a>
V207 — Limited Access Highway	0	No	<a href="#">more</a>
V208 — Road Total Lanes	2	2 lanes	<a href="#">more</a>
V209 — Intersecting Road Total Lanes	2	2 lanes	<a href="#">more</a>
V210 — Road Surface Type	1	Asphalt	<a href="#">more</a>
V211 — Road Defects	0	No	<a href="#">more</a>
V212 — Construction Zone	0	No	<a href="#">more</a>
V213 — Road Alignment Vertical Plane	1	Level	<a href="#">more</a>
V214 — Road Alignment Horizontal Plane	1	Straight	<a href="#">more</a>
V215 — Surface Covering	10	Dry	<a href="#">more</a>
V216 — Visibility Limitation	0	None	<a href="#">more</a>
V217 — Visibility Obstruction	0	None	<a href="#">more</a>
V218 — Speed Limit	6	86-90 km/h .. 55 mph	<a href="#">more</a>
V219 — Precipitation Type	0	None	<a href="#">more</a>
V220 — Precipitation Rate	8	Not applicable	<a href="#">more</a>
V221 — Temperature	9	Unknown	<a href="#">more</a>
V222 — Crosswind	9	Unknown	<a href="#">more</a>
V223 — Light Conditions	5	Dark, unlighted	<a href="#">more</a>
V224 — Mechanical Malfunction Mention	0	No	<a href="#">more</a>
V225 — Case Vehicle and Object	1	Yes	<a href="#">more</a>

V226 — Case Vehicle Rollover	0	No	<a href="#">more</a>
V227 — Case Vehicle Ran Off Roadway	0	No	<a href="#">more</a>
V228 — Moving Case Vehicle/Contacted Moving Vehicle	1	Yes	<a href="#">more</a>
V229 — Case Vehicle/Contacted Stopped Vehicle	0	No	<a href="#">more</a>
V230 — Stopped Case Vehicle/Contactd Vehicle	0	No	<a href="#">more</a>
V231 — Total Vehicles Hit By Case Vehicle	1	1 vehicle	<a href="#">more</a>
V232 — Any Fire in Crash	0	No	<a href="#">more</a>
V233 — Max Police Severity-PAR	4	K - Fatal	<a href="#">more</a>
V234 — Driver Alcohol Involvement	0	Had not been drinking	<a href="#">more</a>
V235 — Driver Alcohol BAC	80	Not tested	<a href="#">more</a>
V236 — Driver Impairment Mention	0	No	<a href="#">more</a>
V237 — Driven/Towed From Scene	2	Towed Due to Damage	<a href="#">more</a>

## Other Vehicle

Variable Number and Name	Code Value	Code Description	Other Options
V301 — Other Vehicle VIN	1G1JH12T0270	—	—
V302 — Other Vehicle Manufacturer/Body Code	11327	—	—
V303 — Other Vehicle Manufacturer	113	Chevrolet	<a href="#">more</a>
V304 — Other Vehicle Body Code	27	Compact 100-104.9 in. wb.	<a href="#">more</a>
V305 — Other Vehicle Make/Model	0118	Cavalier	<a href="#">more</a>

V306 — Other Vehicle Model Year	2001	—	—
V307 — Other Vehicle Mass	001188 kg	—	—
V308 — Other Vehicle Number	1	Vehicle #1	<a href="#">more</a>
V309 — Other Vehicle Number of Occupants	01	—	—
V310 — Other Vehicle Traveling Speed	997	Speed not excessive (but unknown)	<a href="#">more</a>
V311 — Highest Police Injury Severity	4	K - Fatal	<a href="#">more</a>
V312 — Other Vehicle Type	27	Compact 100-104.9 in. wb.	<a href="#">more</a>
V313 — Other Vehicle Wheelbase (cm)	264 cm	—	—
V314 — Average Track Width	145 cm	—	—
V315 — Overall Length	460 cm	—	—
V316 — Overall Width (OAW)	174 cm	—	—
V317 — Front Overhang (FOH)	099 cm	—	—
V318 — Rear Overhang (ROH)	097 cm	—	—
V319 — Undeformed End Width (UEW)	150 cm	—	—
V320 — Engine Displacement	2.4 l	—	—
V321 — Engine: Number of Cylinders	04	—	—
V322 — Direct Damage Length (DDL)	999	Unknown	<a href="#">more</a>
V323 — Front-End Overlap % (FEO)	99	Missing or Not applicable	<a href="#">more</a>
V324 — Vehicle Overlap % (VOL)	99	Missing or Not applicable	<a href="#">more</a>

## Case Vehicle

### General

Variable Number and Name	Code Value	Code Description	Other Options
V401 — VIN	1MEFM53S9WG0	—	—
V402 — Manufacturer/Body Code	12228	—	—
V403 — Vehicle Manufacturer	122	Lincoln-Mercury	<a href="#">more</a>
V404 — Vehicle Body Code	28	—	—
V405 — Make/Model Code	0959	Sable	<a href="#">more</a>
V406 — Model Year	1998	—	—
V407 — Vehicle Mass	001537 kg	—	—
V408 — Odometer Reading	074888 miles	—	—
V409 — Number of Occupants	01	—	—
V410 — Traveling Speed	997	Speed not excessive (but unknown)	<a href="#">more</a>
V411 — Body Type	13	4-door hardtop	<a href="#">more</a>
V412 — Stolen Vehicle	8	Not currently collected	<a href="#">more</a>
V413 — Body Structure	2	Unitized	<a href="#">more</a>
V414 — Transmission Type	1	Automatic	<a href="#">more</a>
V415 — Transmission Lever Location	2	Console	<a href="#">more</a>
V416 — Steering	1	Power	<a href="#">more</a>
V417 — Brakes	1	Power	<a href="#">more</a>
V418 — Brake Type	2	Disc - front wheels	<a href="#">more</a>
V419 — Brake Anti-lock Device	9	Unknown	<a href="#">more</a>
V420 — Air Conditioning in Vehicle	8	Not currently collected	<a href="#">more</a>
V421 — Drive Type	2	Front wheel	<a href="#">more</a>
V422 — Dual Rear Wheels	0	No	<a href="#">more</a>

V423 — Original Restraint System Type	3	Airbag	<a href="#">more</a>
V424 — Equipped With Roll Bar	0	No	<a href="#">more</a>
V425 — Roof Type	1	Solid	<a href="#">more</a>
V426 — Wheelbase	276 cm	—	—
V427 — Anti-lacerative Glass	0	None	<a href="#">more</a>
V428 — Average Track Width	156 cm	—	—
V429 — Overall Length	507 cm	—	—
V430 — Overall Width (OAW)	185 cm	—	—
V431 — Front Overhang	106 cm	—	—
V432 — Rear Overhang	126 cm	—	—
V433 — Undeformed End Width (UEW)	150 cm	—	—
V434 — Engine Displacement	3.0 <i>l</i>	—	—
V435 — Engine: Number of Cylinders	06	—	—
V436 — Direct Damage Length (DDL)	150 cm	—	—
V437 — Front End Overlap % (FEO)	98	98% or more	<a href="#">more</a>
V438 — Vehicle Overlap % (VOL)	98	98% or more	<a href="#">more</a>

## Case Vehicle

## Damage

## Description

Variable Number and Name	Code Value	Code Description	Other Options
V501 — Maximum Crush - Front	002 cm	—	—
V502 — Maximum Crush - Right Side	000 cm	No crush (or less than 1 cm.)	<a href="#">more</a>
V503 — Maximum Crush - Rear	000 cm	No crush (or less than 1 cm.)	<a href="#">more</a>
V504 — Maximum Crush - Left Side	000 cm	No crush (or less than 1 cm.)	<a href="#">more</a>
V505 — Maximum Crush - Roof	028 cm	—	—
V506 — Maximum Crush - Other	000 cm	No crush (or less than 1 cm.)	<a href="#">more</a>
V507 — Are Events In Chronological Order	1	Yes	<a href="#">more</a>
V508 — Event 1 Impact Location	1	On Roadway	<a href="#">more</a>
V509 — Event 1 Impact Configuration	13	FRONT of case veh - SIDE of contacted Vehicle	<a href="#">more</a>
V510 — Event 1 Object/Vehicle Contacted	27	Compact 100-104.9 in. wb.	<a href="#">more</a>
V511 — Event 2 Impact Location	3	On Roadside	<a href="#">more</a>
V512 — Event 2 Impact Configuration	57	Case vehicle - object - other configuration	<a href="#">more</a>
V513 — Event 2 Object/Vehicle Contacted	77	Sign post, utility pole, tree	<a href="#">more</a>
V514 — Event 3 Impact Location	8	No 3rd event	<a href="#">more</a>
V515 — Event 3 Impact Configuration	88	No 3rd event	<a href="#">more</a>
V516 — Event 3 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V517 — Event 4 Impact Location	8	No 4th event	<a href="#">more</a>
V518 — Event 4 Impact Configuration	88	No 4th event	<a href="#">more</a>

V519 — Event 4 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V520 — Event 5 Impact Location	8	No 5th event	<a href="#">more</a>
V521 — Event 5 Impact Configuration	88	No 5th event	<a href="#">more</a>
V522 — Event 5 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V523 — Event 6 Impact Location	8	No 6th event	<a href="#">more</a>
V524 — Event 6 Impact Configuration	88	No 6th event	<a href="#">more</a>
V525 — Event 6 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V526 — Event 7 Impact On Road	8	No 7th event	<a href="#">more</a>
V527 — Event 7 Impact Configuration	88	No 7th event	<a href="#">more</a>
V528 — Event 7 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V529 — Primary CDC Case Vehicle -event Number	1	Event 1	<a href="#">more</a>
V530 — Primary CDC Case Vehicle - impact speed	999	Unknown	<a href="#">more</a>
V531 — Primary CDC Case Vehicle - Estimated By	1	Investigator	<a href="#">more</a>
V532 — Primary CDC Case Vehicle -crush	002	—	—
V533 — Primary CDC Case Vehicle -clock #1	12	12 o'clock	<a href="#">more</a>
V534 — Primary CDC Case Vehicle letter 1 #1	06	F - Front	<a href="#">more</a>
V535 — Primary CDC Case Vehicle letter 2 #1	04	D - Distributed (Side or End)	<a href="#">more</a>
V536 — Primary CDC Case Vehicle letter 3 #1	05	E - Everything below belt line	<a href="#">more</a>
V537 — Primary CDC Case Vehicle letter 4 #1	23	W - Wide impact area	<a href="#">more</a>
V538 — Primary CDC Case Vehicle Extent #1	01	Extent 1	<a href="#">more</a>
V539 — Primary CDC Case Vehicle -CDC #1	12FDEW1	—	—

V541 — Primary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V542 — Primary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V543 — Primary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V544 — Primary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V545 — Primary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	<a href="#">more</a>
V546 — Primary CDC Case Vehicle -CDC #2	9800000	—	—
V547 — Primary CDC Contacted Vehicle - Impact Speed	999	Unknown	<a href="#">more</a>
V548 — Primary CDC Contacted Vehicle - Estimated By	1	Investigator	<a href="#">more</a>
V549 — Primary CDC Contacted Vehicle -crush	065	—	—
V550 — Primary CDC Contacted Vehicle -clock #1	09	9 o'clock	<a href="#">more</a>
V551 — Primary CDC Contacted Vehicle letter 1 #1	12	L - Left Side	<a href="#">more</a>
V552 — Primary CDC Contacted Vehicle letter 2 #1	16	P - Side Center Section (Left or Right) or Cab	<a href="#">more</a>
V553 — Primary CDC Contacted Vehicle letter 3 #1	05	E - Everything below belt line	<a href="#">more</a>
V554 — Primary CDC Contacted Vehicle letter 4 #1	23	W - Wide impact area	<a href="#">more</a>
V555 — Primary CDC Contacted Vehicle Extent #1	04	Extent 4	<a href="#">more</a>
V556 — Primary CDC Contacted Vehicle -CDC #1	09LPEW4	—	—
V558 — Primary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V559 — Primary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V560 — Primary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V561 — Primary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	<a href="#">more</a>



V562 — Primary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	<a href="#">more</a>
V563 — Primary CDC Contacted Vehicle -CDC #2	9800000	—	—
V564 — Secondary CDC Case Vehicle - Event No	2	Event 1	<a href="#">more</a>
V565 — Secondary CDC Case Vehicle - Impact Speed	999	Unknown	<a href="#">more</a>
V566 — Secondary CDC Case Vehicle - Estimated By	1	—	—
V567 — Secondary CDC Case Vehicle -crush	028	—	—
V568 — Secondary CDC Case Vehicle -clock #1	00	Nonhorizontal force	<a href="#">more</a>
V569 — Secondary CDC Case Vehicle letter 1 #1	20	T - Top	<a href="#">more</a>
V570 — Secondary CDC Case Vehicle letter 2 #1	25	Y - Side or end (F + P or L + C)	<a href="#">more</a>
V571 — Secondary CDC Case Vehicle letter 3 #1	04	D - Distributed	<a href="#">more</a>
V572 — Secondary CDC Case Vehicle letter 4 #1	15	O - Rollover (includes rolling onto side)	<a href="#">more</a>
V573 — Secondary CDC Case Vehicle Extent #1	03	Extent 3	<a href="#">more</a>
V574 — Secondary CDC Case Vehicle -CDC #1	00TYDO3	—	—
V576 — Secondary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V577 — Secondary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V578 — Secondary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V579 — Secondary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V580 — Secondary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	<a href="#">more</a>
V581 — Secondary CDC Case Vehicle -CDC #2	9800000	—	—
V582 — Secondary CDC Contacted Vehicle - Impact Speed	998	Not Applicable	<a href="#">more</a>

V583 — Secondary CDC Contacted Vehicle - Estimated By	8	Not applicable (no vehicle/no impact)	<a href="#">more</a>
V584 — Secondary CDC Contacted Vehicle -crush	998	Not Applicable	<a href="#">more</a>
V585 — Secondary CDC Contacted Vehicle -clock #1	98	Not Applicable	<a href="#">more</a>
V586 — Secondary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable	<a href="#">more</a>
V587 — Secondary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable	<a href="#">more</a>
V588 — Secondary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	<a href="#">more</a>
V589 — Secondary CDC Contacted Vehicle letter 4 #1	00	Missing Data/Not applicable	<a href="#">more</a>
V590 — Secondary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	<a href="#">more</a>
V591 — Secondary CDC Contacted Vehicle -CDC #1	9800000	—	—
V593 — Secondary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V594 — Secondary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V595 — Secondary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V596 — Secondary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V597 — Secondary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	<a href="#">more</a>
V598 — Secondary CDC Contacted Vehicle -CDC #2	9800000	—	—

## Crash Severity

Variable Number and Name	Code Value	Code Description	Other Options
V601 — Case Vehicle Primary Impact Number	1	—	—
V602 — Primary Impact Total Delta-V	038 kph	—	—
V603 — Primary Case Vehicle Reconstructed Longitudinal Delta-V	-038 kph	—	—
V604 — Primary Case Vehicle Reconstructed Lateral Delta-V	0000 kph	—	—
V605 — Primary Case Vehicle Reconstructed Crush Energy	0102 kJ	—	—
V606 — Primary Impact Case Vehicle -reconstruction	22	Reconstructed, moderate confidence level	<a href="#">more</a>
V607 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	<a href="#">more</a>
V608 — Primary Contacted Vehicle Reconstructed Total Delta-V	046 kph	—	—
V609 — Primary Contacted Vehicle Reconstructed Longitudinal Delta-V	0000 kph	—	—
V610 — Primary Contacted Vehicle Reconstructed Lateral Delta-V	0046 kph	—	—
V611 — Primary Contacted Vehicle Reconstructed Crush Energy	0174 kJ	—	—
V612 — Case Vehicle Secondary Impact Number	2	—	—
V613 — Secondary Case Vehicle Reconstructed Total Delta-V	999	Unknown	<a href="#">more</a>
V614 — Secondary Case Vehicle Reconstructed Longitudinal Delta-V	9999	—	—
V615 — Secondary Case Vehicle Reconstructed Lateral Delta-V	9999	—	—

V616 — Secondary Case Vehicle Reconstructed Crush Energy	9999	—	—
V617 — Secondary Case Vehicle Reconstruction Note	07	Other non-horizontal force	<a href="#">more</a>
V618 — Secondary Case Vehicle Reconstruction Mode	5	Not reconstructed	<a href="#">more</a>
V619 — Secondary Contacted Vehicle Reconstructed Total Delta-V	888	N/A	<a href="#">more</a>
V620 — Secondary Contacted Vehicle Reconstructed Longitudinal Delta-V	8888	—	—
V621 — Secondary Contacted Vehicle Reconstructed Lateral Delta-V	8888	—	—
V622 — Secondary Contacted Vehicle Reconstructed Crush Energy	8888	—	—
V623 — Case Vehicle Primary Impact Number	1	—	—
V624 — Primary Case Vehicle Reconstructed Total EBS	013 kph	—	—
V625 — Primary Case Vehicle Reconstructed Longitudinal EBS	-013 kph	—	—
V626 — Primary Case Vehicle Reconstructed Lateral EBS	0000 kph	—	—
V627 — Primary Case Vehicle Reconstructed Crush Energy	0102 kJ	—	—
V628 — Primary Case Vehicle Reconstruction Note	22	Reconstructed, moderate confidence level	<a href="#">more</a>
V629 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	<a href="#">more</a>
V630 — Primary Contacted Vehicle Reconstruction Total EBS	061 kph	—	—
V631 — Primary Contacted Vehicle Reconstruction Longitudinal EBS	0000 kph	—	—
V632 — Primary Contacted Vehicle Reconstruction Lateral EBS	0061 kph	—	—

V633 — Primary Contacted Vehicle Reconstruction Crush Energy	0174 kJ	—	—
V634 — Case Vehicle Secondary Impact Number	2	—	—
V635 — Secondary Case Vehicle Reconstruction Total EBS	999	Unknown	<a href="#">more</a>
V636 — Secondary Case Vehicle Reconstruction Longitudinal EBS	9999	—	—
V637 — Secondary Case Vehicle Reconstruction Lateral EBS	9999	—	—
V638 — Secondary Case Vehicle Reconstruction Crush Energy	9999	—	—
V639 — Secondary Case Vehicle Reconstruction Note	07	Other non-horizontal force	<a href="#">more</a>
V640 — Secondary Case Vehicle Reconstruction Mode	5	Not reconstructed	<a href="#">more</a>
V641 — Secondary Contacted Vehicle Reconstruction Total EBS	888	N/A	<a href="#">more</a>
V642 — Secondary Contacted Vehicle Reconstruction Longitudinal EBS	8888	—	—
V643 — Secondary Contacted Vehicle Reconstruction Lateral EBS	8888	—	—
V644 — Secondary Contacted Vehicle Reconstruction Crush Energy	8888	—	—
V645 — Case Vehicle Reconstructed Impact Number	1	—	—
V646 — Case Vehicle Impact 1 Plane	1	Bumper	<a href="#">more</a>
V647 — Case Vehicle Impact 1 Direct Damage Length [DDL]	150 cm	—	—
V648 — Case Vehicle Impact 1 Max Crush	002 cm	—	—
V649 — Case Vehicle Impact 1 Field-L	150 cm	—	—
V650 — Case Vehicle Impact 1 C1	002 cm	—	—

V651 — Case Vehicle Impact 1 C2	002 cm	—	—
V652 — Case Vehicle Impact 1 C3	002 cm	—	—
V653 — Case Vehicle Impact 1 C4	002 cm	—	—
V654 — Case Vehicle Impact 1 C5	002 cm	—	—
V655 — Case Vehicle Impact 1 C6	002 cm	—	—
V656 — Case Vehicle Impact 1 +/- D	0000 cm	—	—
V657 — Case Vehicle Reconstructed Impact Number	2	—	—
V658 — Case Vehicle Impact 2 Plane	5	Other	<a href="#">more</a>
V659 — Case Vehicle Impact 2 Direct Damage Length [DDL]	999	Unknown	<a href="#">more</a>
V660 — Case Vehicle Impact 2 Max Crush	028 cm	—	—
V661 — Case Vehicle Impact 2 Field-L	999	Unknown	<a href="#">more</a>
V662 — Case Vehicle Impact 2 C1	999	Unknown	<a href="#">more</a>
V663 — Case Vehicle Impact 2 C2	999	Unknown	<a href="#">more</a>
V664 — Case Vehicle Impact 2 C3	999	Unknown	<a href="#">more</a>
V665 — Case Vehicle Impact 2 C4	999	Unknown	<a href="#">more</a>
V666 — Case Vehicle Impact 2 C5	999	Unknown	<a href="#">more</a>
V667 — Case Vehicle Impact 2 C6	999	Unknown	<a href="#">more</a>
V668 — Case Vehicle Impact 2 +/- D	0999 cm	—	—
V669 — Other Vehicle Reconstructed Impact Number	1	—	—
V670 — Other Vehicle Impact 1 Plane	4	Above sill	<a href="#">more</a>

V671 — Other Vehicle Impact 1 Direct Damage Length [DDL]	168 cm	—	—
V672 — Other Vehicle Impact 1 Max Crush	065 cm	—	—
V673 — Other Vehicle Impact 1 Field-L	209 cm	—	—
V674 — Other Vehicle Impact 1 C1	004 cm	—	—
V675 — Other Vehicle Impact 1 C2	055 cm	—	—
V676 — Other Vehicle Impact 1 C3	065 cm	—	—
V677 — Other Vehicle Impact 1 C4	057 cm	—	—
V678 — Other Vehicle Impact 1 C5	032 cm	—	—
V679 — Other Vehicle Impact 1 C6	002 cm	—	—
V680 — Other Vehicle Impact 1 +/- D	0023 cm	—	—
V681 — Other Vehicle Reconstructed Impact Number	2	—	—
V682 — Other Vehicle Impact 2 Plane	8	Not applicable	<a href="#">more</a>
V683 — Other Vehicle Impact 2 Direct Damage Length [DDL]	998	Not applicable	<a href="#">more</a>
V684 — Other Vehicle Impact 2 Max Crush	998	Not applicable	<a href="#">more</a>
V685 — Other Vehicle Impact 2 Field-L	998	Not applicable	<a href="#">more</a>
V686 — Other Vehicle Impact 2 C1	998	Not applicable	<a href="#">more</a>
V687 — Other Vehicle Impact 2 C2	998	Not applicable	<a href="#">more</a>
V688 — Other Vehicle Impact 2 C3	998	Not applicable	<a href="#">more</a>
V689 — Other Vehicle Impact 2 C4	998	Not applicable	<a href="#">more</a>
V690 — Other Vehicle Impact 2 C5	998	Not applicable	<a href="#">more</a>

V691 — Other Vehicle Impact 2 C6	998	Not applicable	<a href="#">more</a>
V692 — Other Vehicle Impact 2 +/- D	9998	—	—

## Case Vehicle

### Tires & Rims

Variable Number and Name	Code Value	Code Description	Other Options
V701 — Left Front Wheel Damaged	0	No	<a href="#">more</a>
V702 — Right Front Wheel Damaged	0	No	<a href="#">more</a>
V703 — Right Rear Wheel Damaged	0	No	<a href="#">more</a>
V704 — Left Rear Wheel Damaged	0	No	<a href="#">more</a>
V705 — Left Front Tire Tread Type	4	All Weather	<a href="#">more</a>
V706 — Right Front Tire Tread Type	4	All Weather	<a href="#">more</a>
V707 — Right Rear Tire Tread Type	4	All Weather	<a href="#">more</a>
V708 — Left Rear Tire Tread Type	4	All Weather	<a href="#">more</a>
V709 — Left Front Carcass Construction	3	Radial	<a href="#">more</a>
V710 — Right Front Carcass Construction	3	Radial	<a href="#">more</a>
V711 — Right Rear Carcass Construction	3	Radial	<a href="#">more</a>
V712 — Left Rear Carcass Construction	3	Radial	<a href="#">more</a>
V717 — Left Front Tire Size	P2056SR15	—	—
V718 — Right Front Tire Size	P2056SR15	—	—



V719 — Right Rear Tire Size	P2056SR15	—	—
V720 — Left Rear Tire Size	P2056SR15	—	—

## Case Vehicle

### Fuel, Tank, Fire

Variable Number and Name	Code Value	Code Description	Other Options
V801 — Propulsive Fuel Type	1	Gasoline	<a href="#">more</a>
V802 — Main Tank Location	322	Within frame/centered laterally - within vertically	<a href="#">more</a>
V803 — Main Filler Cap Location	133	—	—
V804 — Main Tank Material	1	Steel	<a href="#">more</a>
V805 — Aux Tank Type	8	Not applicable (not equipped)	<a href="#">more</a>
V806 — Aux Tank Location	888	Not applicable (not equipped)	<a href="#">more</a>
V807 — Aux Filler Cap Location	888	Not applicable (not equipped)	<a href="#">more</a>
V808 — Aux Tank Material	8	Not applicable	<a href="#">more</a>
V901 — Fuel Leakage From Crash	0	No	<a href="#">more</a>
V1001 — Fire In Or On Case Vehicle	0	No	<a href="#">more</a>

## Case Vehicle

### Exterior

Variable Number and Name	Code Value	Code Description	Other Options
V1101 — Hood Latch Released	0	No	<a href="#">more</a>
V1102 — Hood Latch Damaged	0	No	<a href="#">more</a>
V1103 — Hood Latch Jammed	8	Not applicable	<a href="#">more</a>

V1104 — Left Hood Hinge Damaged	0	No	<a href="#">more</a>
V1105 — Left Hood Hinge Separated	8	Not applicable	<a href="#">more</a>
V1106 — Right Hood Hinge Damaged	0	No	<a href="#">more</a>
V1107 — Right Hood Hinge Separated	8	Not applicable	<a href="#">more</a>
V1108 — Hood Remained On Vehicle	1	Yes	<a href="#">more</a>
V1109 — Rear Hood Edge Elevated	0	No	<a href="#">more</a>
V1110 — Edge Contacted Windshield	0	No	<a href="#">more</a>
V1111 — Edge Penetrated Windshield	8	Not applicable	<a href="#">more</a>
V1112 — Hood Latch Location	1	Front of Vehicle	<a href="#">more</a>
V1113 — Eng/Transmissn Mount Separation	0	No	<a href="#">more</a>
V1114 — Steerng Column Flex Coupling	9	Unknown if equipped	<a href="#">more</a>
V1115 — Steerng Column Coupling Damaged	9	Unknown	<a href="#">more</a>
V1116 — Steerng Column Coupling Separated	9	Unknown	<a href="#">more</a>
V1117 — Eng Comp Telescopng Unit	88	Not collected	<a href="#">more</a>
V1118 — Comp Orig/Telescopd Diff	888	Not collected	<a href="#">more</a>
V1119 — Left Side Body Mount Separation	8	Not applicable (unitized)	<a href="#">more</a>
V1120 — Upper Left A-pillar Separation	0	No	<a href="#">more</a>
V1121 — Lower Left A-pillar Separation	0	No	<a href="#">more</a>
V1122 — Upper Left B-pillar Separation	0	No	<a href="#">more</a>
V1123 — Lower Left B-pillar Separation	0	No	<a href="#">more</a>

V1124 — Upper Left C-pillar Separation	0	No	<a href="#">more</a>
V1125 — Lower Left C-pillar Separation	0	No	<a href="#">more</a>
V1126 — Upper Left D-pillar Separation	8	Not applicable (not equipped)	<a href="#">more</a>
V1127 — Lower Left D-pillar Separation	8	Not applicable (not equipped)	<a href="#">more</a>
V1128 — Left Front Door Opening Cause	0	Door did not open	<a href="#">more</a>
V1129 — Left Rear Door Opening Cause	0	Door did not open	<a href="#">more</a>
V1130 — Left Front Door Jammed Closed	0	No	<a href="#">more</a>
V1131 — Left Rear Door Jammed Closed	0	No	<a href="#">more</a>
V1132 — Rear Door Type	0	No door (includes pickups)	<a href="#">more</a>
V1133 — Rear Door Opening Cause	8	Not applicable (no rear door)	<a href="#">more</a>
V1134 — Rear Door Jammed Closed	8	Not applicable (no rear door)	<a href="#">more</a>
V1135 — Luggage Partition Damagd	0	No	<a href="#">more</a>
V1136 — Spare Tire Status	8	Not collected	<a href="#">more</a>
V1137 — Trailer Hitch Type	0	No hitch	<a href="#">more</a>
V1138 — Trailer Type	0	No trailer	<a href="#">more</a>
V1139 — Right Side Body Mount Separation	8	Not applicable (unitized)	<a href="#">more</a>
V1140 — Upper Right A-pillar Separation	4	No separation, but damaged	<a href="#">more</a>
V1141 — Lower Right A-pillar Separation	0	No	<a href="#">more</a>
V1142 — Upper Right B-pillar Separation	4	No separation, but damaged	<a href="#">more</a>
V1143 — Lower Right B-pillar Separation	0	No	<a href="#">more</a>
V1144 — Upper Right C-pillar Separation	4	No separation, but damaged	<a href="#">more</a>

V1145 — Lower Right C-pillar Separation	0	No	<a href="#">more</a>
V1146 — Upper Right D-pillar Separation	8	Not applicable (not equipped)	<a href="#">more</a>
V1147 — Lower Right D-pillar Separation	8	Not applicable (not equipped)	<a href="#">more</a>
V1148 — Right Front Door Opening Cause	00	Door did not open	<a href="#">more</a>
V1149 — Right Rear Door Opening Cause	00	Door did not open	<a href="#">more</a>
V1150 — Right Front Door Jammed Closed	1	Yes	<a href="#">more</a>
V1151 — Right Rear Door Jammed Closed	0	No	<a href="#">more</a>
V1152 — Van Rear Door Type	8	Not applicable (not a van)	<a href="#">more</a>
V1153 — Windshield Cracked		Yes	<a href="#">more</a>
V1154 — Windshield Broken	0	No	<a href="#">more</a>
V1155 — Windshield Cracked or Broken by Occupant	1	Yes	<a href="#">more</a>
V1156 — Bond Separation Extent	0	None	<a href="#">more</a>
V1157 — Windshield Code		—	—
V1158 — Did Sun/T Roof Open	8	Not Applicable	<a href="#">more</a>

## Case Vehicle

### Steering

#### Column/Rim

Variable Number and Name	Code Value	Code Description	Other Options
V1201 — Steering Wheel Rim Damage	0	None	<a href="#">more</a>
V1202 — Number of Steering Wheel Spokes	4	4 spokes	<a href="#">more</a>
V1203 — Steering Wheel Spoke Damage	0	None	<a href="#">more</a>
V1204 — Column Tilt Feature	3	Middle	<a href="#">more</a>
V1205 — Column Swing-away Feature	0	Not equipped	<a href="#">more</a>
V1206 — Column Telescoping Feature	0	Not equipped	<a href="#">more</a>
V1207 — Wheel Energy Absorb Device	8	Not collected	<a href="#">more</a>
V1208 — Wheel Ea Orig/Damaged Diff	888	Not collected	<a href="#">more</a>
V1209 — Column Energy Absorb Device	88	Not collected	<a href="#">more</a>
V1210 — Column Ea Orig/Comprss Diff	888	Not collected	<a href="#">more</a>
V1211 — Shear Capsule Separation	888	Not collected	<a href="#">more</a>
V1212 — Column Vertical Rotation	0	No apparent rotation	<a href="#">more</a>
V1213 — Column Lateral Rotation	0	No apparent rotation	<a href="#">more</a>
V1214 — Steering Wheel Hub Damage	0	None	<a href="#">more</a>

## Case Vehicle

### Intrusion

Variable Number and Name	Code Value	Code Description	Other Options
V1301 — Occupant Compartment Intrusion	1	Yes	<a href="#">more</a>
V1302 — Was Intrusion Catastrophic	0	No	<a href="#">more</a>
V1303 — Intrusion Number 01	01	Intrusion #1	<a href="#">more</a>
V1304 — Intrusion 01 Occupant Space Number	13	First row, Right seat	<a href="#">more</a>
V1305 — Intrusion 01 Intruding Object	15	Roof or convertible top	<a href="#">more</a>
V1306 — Intrusion 01 Assoc Event Number	2	Event #2	<a href="#">more</a>
V1307 — Intrusion 01 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1308 — Intrusion 01 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1309 — Intrusion 01 Max Intrusion Z-axis	03 cm	—	—
V1310 — Intrusion 01 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1311 — Intrusion 01 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1312 — Intrusion 01 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1313 — Intrusion 01 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1314 — Intrusion Number 02	02	Intrusion #2	<a href="#">more</a>
V1315 — Intrusion 02 Occupant Space Number	13	First row, Right seat	<a href="#">more</a>
V1316 — Intrusion 02 Intruding Object	11	B-pillar	<a href="#">more</a>
V1317 — Intrusion 02 Assoc Event Number	2	Event #2	<a href="#">more</a>

V1318 — Intrusion 02 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1319 — Intrusion 02 Max Intrusion Y-axis	06 cm	—	—
V1320 — Intrusion 02 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1321 — Intrusion 02 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1322 — Intrusion 02 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1323 — Intrusion 02 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1324 — Intrusion 02 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1325 — Intrusion Number 03	03	Intrusion #3	<a href="#">more</a>
V1326 — Intrusion 03 Occupant Space Number	22	Second row, Center seat	<a href="#">more</a>
V1327 — Intrusion 03 Intruding Object	15	Roof or convertible top	<a href="#">more</a>
V1328 — Intrusion 03 Assoc Event Number	2	Event #2	<a href="#">more</a>
V1329 — Intrusion 03 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1330 — Intrusion 03 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1331 — Intrusion 03 Max Intrusion Z-axis	20 cm	—	—
V1332 — Intrusion 03 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1333 — Intrusion 03 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1334 — Intrusion 03 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1335 — Intrusion 03 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1336 — Intrusion Number 04	04	Intrusion #4	<a href="#">more</a>
V1337 — Intrusion 04 Occupant Space Number	22	Second row, Center seat	<a href="#">more</a>
V1338 — Intrusion 04	16	Rear window header	<a href="#">more</a>

Intruding Object			
V1339 — Intrusion 04 Assoc Event Number	2	Event #2	<a href="#">more</a>
V1340 — Intrusion 04 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1341 — Intrusion 04 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1342 — Intrusion 04 Max Intrusion Z-axis	20 cm	—	—
V1343 — Intrusion 04 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1344 — Intrusion 04 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1345 — Intrusion 04 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1346 — Intrusion 04 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1347 — Intrusion Number 05	05	Intrusion #5	<a href="#">more</a>
V1348 — Intrusion 05 Occupant Space Number	23	Second row, Right seat	<a href="#">more</a>
V1349 — Intrusion 05 Intruding Object	14	Roof side rails	<a href="#">more</a>
V1350 — Intrusion 05 Assoc Event Number	2	Event #2	<a href="#">more</a>
V1351 — Intrusion 05 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1352 — Intrusion 05 Max Intrusion Y-axis	11 cm	—	—
V1353 — Intrusion 05 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1354 — Intrusion 05 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1355 — Intrusion 05 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1356 — Intrusion 05 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1357 — Intrusion 05 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1358 — Intrusion Number 06	06	Intrusion #6	<a href="#">more</a>



V1359 — Intrusion 06 Occupant Space Number	23	Second row, Right seat	<a href="#">more</a>
V1360 — Intrusion 06 Intruding Object	15	Roof or convertible top	<a href="#">more</a>
V1361 — Intrusion 06 Assoc Event Number	2	Event #2	<a href="#">more</a>
V1362 — Intrusion 06 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1363 — Intrusion 06 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1364 — Intrusion 06 Max Intrusion Z-axis	23 cm	—	—
V1365 — Intrusion 06 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1366 — Intrusion 06 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1367 — Intrusion 06 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1368 — Intrusion 06 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1369 — Intrusion Number 07	07	Intrusion #7	<a href="#">more</a>
V1370 — Intrusion 07 Occupant Space Number	23	Second row, Right seat	<a href="#">more</a>
V1371 — Intrusion 07 Intruding Object	16	Rear window header	<a href="#">more</a>
V1372 — Intrusion 07 Assoc Event Number	2	Event #2	<a href="#">more</a>
V1373 — Intrusion 07 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1374 — Intrusion 07 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1375 — Intrusion 07 Max Intrusion Z-axis	23 cm	—	—
V1376 — Intrusion 07 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1377 — Intrusion 07 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1378 — Intrusion 07 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>

V1379 — Intrusion 07 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1380 — Intrusion Number 08	00	No Intrusion, None	<a href="#">more</a>
V1381 — Intrusion 08 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1382 — Intrusion 08 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1383 — Intrusion 08 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1384 — Intrusion 08 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1385 — Intrusion 08 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1386 — Intrusion 08 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1387 — Intrusion 08 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1388 — Intrusion 08 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1389 — Intrusion 08 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1390 — Intrusion 08 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1391 — Intrusion Number 09	00	No Intrusion, None	<a href="#">more</a>
V1392 — Intrusion 09 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1393 — Intrusion 09 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1394 — Intrusion 09 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1395 — Intrusion 09 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1396 — Intrusion 09 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1397 — Intrusion 09 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1398 — Intrusion 09 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1399 — Intrusion 09 Injury	00	No injury or no intrusion	<a href="#">more</a>

Number			
V1400 — Intrusion 09 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1401 — Intrusion 09 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1402 — Intrusion Number 10	00	No Intrusion, None	<a href="#">more</a>
V1403 — Intrusion 10 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1404 — Intrusion 10 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1405 — Intrusion 10 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1406 — Intrusion 10 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1407 — Intrusion 10 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1408 — Intrusion 10 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1409 — Intrusion 10 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1410 — Intrusion 10 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1411 — Intrusion 10 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1412 — Intrusion 10 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1413 — Door Intrusion Number 01	88	Not Applicable	<a href="#">more</a>
V1414 — Door Intrusion Number 01 Cause	8	Not applicable	<a href="#">more</a>
V1415 — Door Intrusion Number 02	88	Not Applicable	<a href="#">more</a>
V1416 — Door Intrusion Number 02 Cause	8	Not applicable	<a href="#">more</a>
V1417 — Door Intrusion Number 03	88	Not Applicable	<a href="#">more</a>
V1418 — Door Intrusion Number 03 Cause	8	Not applicable	<a href="#">more</a>
V1419 — Door Intrusion 01	88	Not Applicable	<a href="#">more</a>

Component			
V1420 — Door Intrusion 01 Component Damaged 1	8	Not Applicable	<a href="#">more</a>
V1421 — Door Intrusion 01 Component Damaged 2	8	Not Applicable	<a href="#">more</a>
V1422 — Door Intrusion 02 Component	88	Not Applicable	<a href="#">more</a>
V1423 — Door Intrusion 02 Component Damaged 1	8	Not Applicable	<a href="#">more</a>
V1424 — Door Intrusion 02 Component Damaged 2	8	Not Applicable	<a href="#">more</a>
V1425 — Door Intrusion 03 Component	88	Not Applicable	<a href="#">more</a>
V1426 — Door Intrusion 03 Component Damaged 1	8	Not Applicable	<a href="#">more</a>
V1427 — Door Intrusion 03 Component Damaged 2	8	Not Applicable	<a href="#">more</a>
V1428 — Door Intrusion 04 Component	88	Not Applicable	<a href="#">more</a>
V1429 — Door Intrusion 04 Component Damaged 1	8	Not Applicable	<a href="#">more</a>
V1430 — Door Intrusion 04 Component Damaged 2	8	Not Applicable	<a href="#">more</a>

## Case Vehicle

### Airbag(s)

Variable Number and Name	Code Value	Code Description	Other Options
V1501 — Driver Airbag Equipped	1	Yes	<a href="#">more</a>
V1502 — Driver Airbag Deployed	1	Yes	<a href="#">more</a>
V1503 — Driver Airbag Condition	0	No Damage	<a href="#">more</a>
V1504 — Passenger Airbag Equip	1	Yes	<a href="#">more</a>
V1505 — Passenger Airbag Deployed	1	Yes	<a href="#">more</a>
V1506 — Passenger Airbag Condition	0	No Damage	<a href="#">more</a>
V1507 — Steering Wheel Airbag Tether	1	Yes	<a href="#">more</a>
V1508 — Driver Airbag Marked By Contact	0	No	<a href="#">more</a>
V1509 — Passenger Airbag Tether	1	Yes	<a href="#">more</a>
V1510 — Passenger Airbag Marked By Contact	0	No	<a href="#">more</a>

## Case Vehicle

### Interior

Variable Number and Name	Code Value	Code Description	Other Options
V1601 — Left Front Door Damaged	0	No	<a href="#">more</a>
V1602 — Right Front Door Damaged	0	No	<a href="#">more</a>
V1603 — Left Front Hardware Damaged	0	No	<a href="#">more</a>
V1604 — Right Front Hardware Damaged	0	No	<a href="#">more</a>
V1605 — Left Front Armrest Damaged	3	No, occupant contact	<a href="#">more</a>
V1606 — Right Front Armrest Damaged	0	No	<a href="#">more</a>
V1607 — Left Front Glass Damaged	0	No	<a href="#">more</a>
V1608 — Right Front Glass Damaged	1	Yes	<a href="#">more</a>
V1609 — Left Rear Door Area Damaged	0	No	<a href="#">more</a>
V1610 — Right Rear Door Area Damaged	1	Yes	<a href="#">more</a>
V1611 — Left Rear Hardware Damaged	0	No	<a href="#">more</a>
V1612 — Right Rear Hardware Damaged	0	No	<a href="#">more</a>
V1613 — Left Rear Armrest Damaged	0	No	<a href="#">more</a>
V1614 — Right Rear Armrest Damaged	0	No	<a href="#">more</a>
V1615 — Left Rear Glass Damaged	0	No	<a href="#">more</a>
V1616 — Right Rear Glass Damaged	1	Yes	<a href="#">more</a>
V1617 — Left Roof Side Rail Damaged	0	No	<a href="#">more</a>
V1618 — Right Roof Side Rail Damaged	1	Yes	<a href="#">more</a>
V1619 — Left B-pillar Damaged	0	No	<a href="#">more</a>

V1620 — Right B-pillar Damaged	1	Yes	<a href="#">more</a>
V1621 — Left C-pillar Damaged	0	No	<a href="#">more</a>
V1622 — Right C-pillar Damaged	1	Yes	<a href="#">more</a>
V1623 — Left D-pillar Damaged	8	Not applicable	<a href="#">more</a>
V1624 — Right D-pillar Damaged	8	Not applicable	<a href="#">more</a>
V1625 — Left Headlining Damaged	0	No	<a href="#">more</a>
V1626 — Right Headlining Damaged	1	Yes	<a href="#">more</a>
V1627 — Left Roof Structure Damaged	0	No	<a href="#">more</a>
V1628 — Right Roof Structure Damaged	1	Yes	<a href="#">more</a>
V1629 — Left T/Sun Roof Damaged	8	Not applicable	<a href="#">more</a>
V1630 — Right T/Sun Roof Damaged	8	Not applicable	<a href="#">more</a>
V1631 — Other Left Side Item Damagd	8	Not applicable	<a href="#">more</a>
V1632 — Other Right Side Item Damagd	8	Not applicable	<a href="#">more</a>
V1633 — Foot Controls Damaged	0	No	<a href="#">more</a>
V1634 — Ignition Key Damaged	0	No	<a href="#">more</a>
V1635 — Rear View Mirror Damaged	0	No	<a href="#">more</a>
V1636 — Sunvisor/Fitting Damaged	0	No	<a href="#">more</a>
V1637 — Windshield Molding Damaged	0	No	<a href="#">more</a>
V1638 — Left A-pillar Damaged	0	No	<a href="#">more</a>
V1639 — Right A-pillar Damaged	1	Yes	<a href="#">more</a>
V1640 — Center Console Damaged	0	No	<a href="#">more</a>
V1641 — Transmission Lever Damaged	0	No	<a href="#">more</a>
V1642 — Horn/Spoke Shroud Damagd	0	No	<a href="#">more</a>
V1643 — Upper Panel Damaged	0	No	<a href="#">more</a>
V1644 — Mid Panel Damaged	0	No	<a href="#">more</a>
V1645 — Lower Panel Damaged	0	No	<a href="#">more</a>

V1646 — Ashtray Damaged	0	No	<a href="#">more</a>
V1647 — Control Knob/Lever Damaged	0	No	<a href="#">more</a>
V1648 — Glove Compartment Area Damaged	0	No	<a href="#">more</a>
V1649 — Instruments Damaged	0	No	<a href="#">more</a>
V1650 — Park Brake Release Damaged	0	No	<a href="#">more</a>
V1651 — Park Brake Pedal Damaged	0	No	<a href="#">more</a>
V1652 — A/C Or Upper Vent Damaged	0	No	<a href="#">more</a>
V1653 — Heater Or A/C Duct Damaged	0	No	<a href="#">more</a>
V1654 — Radio Damaged	0	No	<a href="#">more</a>
V1655 — Other Item Damaged	8	Not applicable	<a href="#">more</a>
V1656 — Rear Window Damaged	1	Yes	<a href="#">more</a>
V1657 — Rear Window Header Damaged	1	Yes	<a href="#">more</a>
V1658 — Vertical Console Damaged	0	No	<a href="#">more</a>
V1659 — Roof Console Damaged	8	Not applicable	<a href="#">more</a>



## Case Vehicle Seats

Variable Number and Name	Code Value	Code Description	Other Options
V1701 — Driver Front Seat Type	05	Bucket	<a href="#">more</a>
V1702 — Passenger Front Seat Type	05	Bucket	<a href="#">more</a>
V1703 — Driver Seat Mount Type	1	Standard	<a href="#">more</a>
V1704 — Passenger Seat Mount Type	1	Standard	<a href="#">more</a>
V1705 — Driver Swivel Mechanism Equipped	0	No	<a href="#">more</a>
V1706 — Passenger Swivel Mechanism Equipped	0	No	<a href="#">more</a>
V1707 — Driver Seat Original Equipment	1	Yes	<a href="#">more</a>
V1708 — Passenger Seat Original Equipment	1	Yes	<a href="#">more</a>
V1709 — Driver Seat/Rear Occupant Contact	8	Not applicable	<a href="#">more</a>
V1710 — Passenger Seat/Rear Occupant Contact	8	Not applicable	<a href="#">more</a>
V1711 — Driver Seat Damage	0	None	<a href="#">more</a>
V1712 — Passenger Seat Damage	0	None	<a href="#">more</a>
V1713 — Center Front Armrest Damaged	0	No	<a href="#">more</a>
V1714 — Driver Seat Rotation	0	None apparent	<a href="#">more</a>
V1715 — Passenger Seat Rotation	0	None apparent	<a href="#">more</a>
V1716 — Driver Seat-back Type	3	Reclining	<a href="#">more</a>
V1717 — Passenger Seat-back Type	3	Reclining	<a href="#">more</a>
V1718 — Driver Seat-back Lock Type	1	Manual	<a href="#">more</a>

V1719 — Passenger Seat-back Lock Type	1	Manual	<a href="#">more</a>
V1720 — Driver Seat-back Lock Held	1	Yes	<a href="#">more</a>
V1721 — Passenger Seat-back Lock Held	1	Yes	<a href="#">more</a>
V1722 — Driver Recliner Mechanism Held	1	Yes	<a href="#">more</a>
V1723 — Passenger Recliner Mechanism Held	1	Yes	<a href="#">more</a>
V1724 — Driver Head Restraint Type	1	Adjustable	<a href="#">more</a>
V1725 — Passenger Head Restraint Type	1	Adjustable	<a href="#">more</a>
V1726 — Driver Head Rest Removed	0	No	<a href="#">more</a>
V1727 — Passenger Head Rest Removed	0	No	<a href="#">more</a>
V1728 — Driver Head Rest Adjustment	2	Down	<a href="#">more</a>
V1729 — Passenger Head Rest Adjustment	2	Down	<a href="#">more</a>
V1730 — Driver Head Rest Damage	0	None	<a href="#">more</a>
V1731 — Passenger Head Rest Damage	0	None	<a href="#">more</a>
V1732 — Driver Seat Adjustment Type	2	Power	<a href="#">more</a>
V1733 — Passenger Seat Adjustment Type	1	Manual	<a href="#">more</a>
V1734 — Driver Seat Adjustment Provided	3	6-way	<a href="#">more</a>
V1735 — Passenger Seat Adjustment Provided	1	2-way	<a href="#">more</a>
V1736 — Driver Seat Adjuster Damage	0	None	<a href="#">more</a>
V1737 — Passenger Seat Adjuster Damage	0	None	<a href="#">more</a>
V1738 — Driver Seat Adjuster Separation	8	Not applicable	<a href="#">more</a>

V1739 — Passenger Seat Adjuster Separation	8	Not applicable	<a href="#">more</a>
V1740 — Driver Seat Pre-crash Position	2	Middle	<a href="#">more</a>
V1741 — Passenger Seat Pre-crash Position	2	Middle	<a href="#">more</a>
V1742 — Left Rear Seat Type	1	Non-folding	<a href="#">more</a>
V1743 — Right Rear Seat Type	1	Non-folding	<a href="#">more</a>
V1744 — Left Rear Seat Damaged	0	None	<a href="#">more</a>
V1745 — Right Rear Seat Damaged	0	None	<a href="#">more</a>
V1746 — Center Rear Armrest Damaged	0	No	<a href="#">more</a>
V1747 — Left Rear Seat-back Left Lock Equipped	8	Not applicable	<a href="#">more</a>
V1748 — Right Rear Seat-back Left Lock Equipped	8	Not applicable	<a href="#">more</a>
V1749 — Left Rear Seat-back Left Lock Held	8	Not applicable	<a href="#">more</a>
V1750 — Right Rear Seat-back Left Lock Held	8	Not applicable	<a href="#">more</a>
V1751 — Left Rear Seat-back Right Lock Equipped	8	Not applicable	<a href="#">more</a>
V1752 — Right Rear Seat-back Right Lock Equipped	8	Not applicable	<a href="#">more</a>
V1753 — Left Rear Seat-back Right Lock Held	8	Not applicable	<a href="#">more</a>
V1754 — Right Rear Seat-back Right Lock Held	8	Not applicable	<a href="#">more</a>
V1755 — Left 3rd Seat Equipped	0	No	<a href="#">more</a>
V1756 — Right 3rd Seat Equipped	0	No	<a href="#">more</a>
V1757 — Left 3rd Seat Backrest Damaged	8	Not applicable	<a href="#">more</a>
V1758 — Right 3rd Seat Backrest Damaged	8	Not applicable	<a href="#">more</a>

V1759 — Left 3rd Seat Cushion Damaged	8	Not applicable	<a href="#">more</a>
V1760 — Right 3rd Seat Cushion Damaged	8	Not applicable	<a href="#">more</a>
V1761 — Rear Head Restraints	0	Not Equipped (or removed)	<a href="#">more</a>

# MEASUREMENTS IN CENTIMETERS



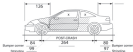
Impact #2 - max vertical crush = 35 cm



Original  
Bumper Height



Impact #3 - 16 cm wide, 14 cm max crush



Impact #1 - 148 cm wide, 35 cm max crush



# MEASUREMENTS IN CENTIMETERS

maximum vertical crush = 38 cm



Original  
Bumper height



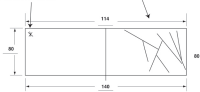
Direct damage width = 158 cm  
Maximum crush = 2 cm

WINDSHIELD MARK ON CASE VEHICLE:

**Unable to read W/S Mark**

small spiderweb-type crack in  
upper left corner of WHS

WHS damage from RIF  
airbag deployment





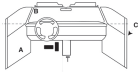
1 = Definitely 2 = Probably 3 = Possible

## INTRUSION IT-1

Location of Intrusion	Intruded Component	(All Measurements Are in Centimeters)					Dominant Crush Direction
		Comparison Value	–	Intruded Value	=	Intrusion	
RF	Roof	70	–	67	=	3	Down
RF	B-pillar	58	–	52	=	6	To left
CR	Backlight header	58	–	38	=	20	Down
CR	Roof	58	–	38	=	20	Down
RR	Roof	26	–	3	=	23	Down
RR	Roof siderail	58	–	47	=	11	To left
RR	Backlight header	26	–	3	=	23	Down
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		

## OCCUPANT CONTACT WORKSHEET

Contact	Interior Component Contacted	Occupant No. if Known	Body Region if Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	LF door	1	Left hip	Scuff	3
B	W/S	1	Hand?	Cracked	2
C	R B-pillar			Scuffed, abraded	3



**A = possible scuff on LF interior door armrest**

**B = spiderweb type crack on W/S**

**C = scuff/scrape on B-pillar and D-ring**

# Driver Airbag



Vents: ☒ Y N 2  
if yes, how many: \_\_\_\_\_

Tethers: ☒ Y N 1  
if yes, how many: \_\_\_\_\_

## Driver Airbag Doors



H-Pattern



I-Pattern



Single Door

# Passenger Airbag



Verts: Y ☒ N  
 If yes, how many:

Tethers: ☒ N  
 If yes, how many:

## Passenger-Airbag Doors

H-Pattern:



Single Door



# Case # 327: Occupant # 1; Injury # 1

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	01	Injury #1	<a href="#">more</a>
V2102 — 1st Prob Contact Area	52	Internal flying glass (from any source)	<a href="#">more</a>
V2103 — 2nd Prob Contact Area	00	No Contact/not applicable	<a href="#">more</a>
V2104 — Primary OIC -body Region	21	Unknown	<a href="#">more</a>
V2105 — Primary OIC -aspect	21	Unknown	<a href="#">more</a>
V2106 — Primary OIC -lesion	12	Laceration	<a href="#">more</a>
V2107 — Primary OIC -system/Organ	09	Integumentary	<a href="#">more</a>
V2108 — Primary OIC -severity	1	Minor	<a href="#">more</a>
V2109 — Primary OIC	UULI1	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	<a href="#">more</a>
V2111 — Assoc OIC 1 -aspect	99	No injury	<a href="#">more</a>
V2112 — Assoc OIC 1 -lesion	99	No injury	<a href="#">more</a>
V2113 — Assoc OIC 1 -system/Organ	99	No injury	<a href="#">more</a>
V2114 — Assoc OIC 1 -severity	9	Unknown	<a href="#">more</a>
V2115 — Assoc OIC 1	—	—	—

[Back to Injury Menu](#)

# Case # 327: Occupant # 1

Variable Number and Name	Code Value	Code Description	Other Options
V2001 — Occupant Number	01	Occupant #1	<a href="#">more</a>
V2002 — Occupant Role At 1st Impact	1	Motor vehicle driver	<a href="#">more</a>
V2003 — Occupant Position -row	1	1st row	<a href="#">more</a>
V2004 — Occupant Position -lateral	1	Left	<a href="#">more</a>
V2005 — Occupant Position -posture	10	Sitting on seat	<a href="#">more</a>
V2006 — Occupant Age In Years	24	—	—
V2007 — Occupant Age In Months	25	25 months or older	<a href="#">more</a>
V2008 — Occupant Mass	050 kg	—	—
V2009 — Occupant Height	155 cm	—	—
V2010 — Occupant Sex	2	Female	<a href="#">more</a>
V2011 — Occupant Treatment/Mortality	00	None	<a href="#">more</a>
V2012 — Injury Severity Score	01	ISS 1	<a href="#">more</a>
V2013 — Non-impact Med Condition	0	None	<a href="#">more</a>
V2014 — Police Injury Severity	1	C - Possible injury	<a href="#">more</a>
V2015 — Active Restraint System	3	Both lap belt and shoulder harness	<a href="#">more</a>
V2016 — Active Restraint Usage	3	Both lap belt and shoulder harness	<a href="#">more</a>
V2017 — Passive Restraint System	1	Air bag installed	<a href="#">more</a>
V2018 — Passive Restraint Usage	2	Air bag deployed	<a href="#">more</a>
V2019 — Child Seat Type	88	Not applicable (adult or older child)	<a href="#">more</a>
V2020 — Occupant Ejection Degree	0	None	<a href="#">more</a>
V2021 — Occupant Ejection Area	98	Not applicable (not ejected)	<a href="#">more</a>

V2022 — Highest OIC Severity	1	Minor	<a href="#">more</a>
V2023 — Head Restraint Available	1	Equipped	<a href="#">more</a>
V2024 — Occupant Eyewear	1	Glasses	<a href="#">more</a>
V2025 — Source of Occupant Info	7	Combination of above	<a href="#">more</a>









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WARNING































1983

2002

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♥  
YOU

2002







































































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